

# **EconS 593: Applications in Microeconomic Topics**

## **Spring 2016**

**Class Meetings:** 03/01/2016-04/28/2016, TTH, 1:25-2:40 pm, Hulbert 23

**Instructor:** Ben Cowan; Office: 103E Hulbert Hall; Email: ben.cowan@wsu.edu

**My Office Hours:** Monday and Wednesday, 10:00 – 11:00 am or by appointment.

### **Course Description:**

This module of 593 will focus on topics in human capital (e.g. schooling, health). The goal is to synthesize theory, econometrics, and empirical work in this area. While the topics are specific to labor economics, the approaches and techniques we discuss should be useful for empirical work in a variety of fields.

### **Learning Goals:**

Students will:

- 1) Develop an understanding of ongoing research questions in the field of human capital (e.g. the role of government in human capital accumulation, returns to education, the relationship between health and human capital, and compensating differentials).
- 2) Learn and apply empirical techniques that are essential to the applied econometrician's toolkit: instrumental variables, differences-in-differences and panel data methods, selection correction, regression discontinuity, and others.
- 3) Stimulate advancements (ideological, methodological, etc.) in their own research.
- 4) Hone skills that are needed as a Ph.D. economist, including the ability to read, critique, and present research.

### **Evaluation:**

Evaluation in this module will be based on 4 criteria:

**1) Problem sets (30%):** I will assign roughly 3 problem sets throughout the 8 weeks (these will be based on issues we discuss in class as well as the assigned readings). These should be viewed as an opportunity to help you read the course material in more depth. Grading will be based on careful consideration of the questions at hand.

**2) Class presentations/article summaries (30%):** Many of the papers we will cover are conducive to student presentation. I will assign certain papers for you to present. Each

presentation, along with associated questions, should take 60 minutes. Here is a rough outline you should follow:

- a) What is the question?
- b) Why is it interesting?
- c) What is the contribution (i.e. how is it different from what has already been done)? Note: there is no need for an exhaustive literature review here. Tell us what the contribution of this research is by relating it to those papers in the literature upon which this research builds directly.
- d) How do the authors answer their question, including:
  - i. What is the model/analytical approach?
  - ii. What empirical implications are tested?
  - iii. What data are used?
  - iv. What empirical techniques are used?
- e) What are the implications of this research? How could it be improved?

For each assigned paper for which you are **NOT** a presenter, prepare a critical abstract that discusses the paper. These are intended to make sure you read the paper closely. Your critical abstract will consist of each of the following (numbered) parts:

- i) Title and authors.
- ii) The research issue, in 1 to 2 sentences.
- iii) The method used (empirical, theoretical, combination).
- iv) Main conclusions reached.
- v) In 2 or 3 sentences, what you think was the most important contribution of the paper.
- vi) In 2 or 3 sentences, what you think was the biggest weakness of the paper. You should be particularly critical of papers for which I am an author.

These must be **typed** and **handed in at the beginning of each class**.

**3) Problem proposal (30%):** Write a research proposal on one of the topics covered in this module of 593. Your topic should either be related to human capital in some way OR your analytical approach should utilize an empirical strategy that we cover. Your proposal should address the same questions given above as a guide for presentations and **include preliminary results**. 3-5 double-spaced pages of text is a good benchmark.

**4) Class participation (10%):** I will judge your participation based on your contributions to class discussions. Please prepare for class each day by reading the assigned papers ahead of time.

**Schedule (readings that require a critical abstract are in *italics*; handbook chapters can be found on the course website):**

<b>Week</b>	<b>Topic</b>	<b>Readings</b>	<b>Presenter</b>
1	Basic human capital model		Ben
2	Taking the model to the data: Mincer model, Willis and Rosen (1979)	Willis (1986); <i>Willis and Rosen (1979)</i>	Ben
3	Returns to schooling	Card (1999)	Ben
3	Returns to schooling (regression discontinuity)	<i>Oreopoulos (2006)</i>	
4	Returns to schooling (instrumental variables)	<i>Lefgren et al. (2012)</i>	
4	Returns to schooling (randomized experiments, factor analysis)	<i>Heckman, Pinto, and Savalyev (2013)</i>	
5	Borrowing constraints	<i>Cameron and Taber (2004)</i>	Ben
5	Borrowing constraints	<i>Brown et al. (2012)</i>	
5	Borrowing constraints	<i>Cowan (2016)</i>	Ben
6	Education and health	Grossman (2005) and <i>Cowan (2011)</i>	Ben
6	Education and health	<i>Jensen and Lleras-Muney (2012)</i>	
7	Education and health (selection on observables/unobservables)	<i>Fletcher and Frisvold (2011)</i>	
7	Compensating differentials	Rosen (1986)	Ben
8	Compensating differentials (difference-in-differences)	<i>Bhattacharya and Bundorf (2009)</i>	
8	Compensating differentials (synthetic control method)	<i>Stearns (2015)</i>	

## **Readings:**

### **Basic human capital model**

Willis, R. J. (1986). Wage Determinants: A Survey and Reinterpretation of Human Capital Earnings Functions. In O. Ashenfelter, R. Layard (Eds.), *Handbook of labor economics*. Volume 1 (pp. 525-602). *Handbooks in Economics series*, no. 5.

### **Taking the model to the data**

Willis, R. J., & Rosen, S. (1979). Education and Self-Selection. *Journal of Political Economy*, 87(5), S7-36.

### **Returns to schooling**

Card, D. (1999). The Causal Effect of Education on Earnings. In O. Ashenfelter, D. Card (Eds.), *Handbook of labor economics*. Volume 3A (pp. 1801-1863). *Handbooks in Economics*, vol. 5.

Card, D. (2001). Estimating the Return to Schooling: Progress on Some Persistent Econometric Problems. *Econometrica*, 69(5), 1127-1160.

Angrist, J. and Krueger, A. (2001). Instrumental Variables and the Search for Identification: From Supply and Demand to Natural Experiments. *Journal of Economic Perspectives*, 15(4), 69-85.

Altonji, J. G., Elder, T. E., & Taber, C. R. (2005). Selection on Observed and Unobserved Variables: Assessing the Effectiveness of Catholic Schools. *Journal of Political Economy*, 113(1), 151-184.

Lee, D. S. and Lemieux, T. (2010). Regression Discontinuity Designs in Economics. *Journal of Economic Literature*, 48(2), 281-355.

Oreopoulos, P. (2006). Estimating Average and Local Average Treatment Effects of Education When Compulsory Schooling Laws Really Matter. *American Economic Review*, 96(1), 152-175.

Lefgren, L., Lindquist, M. J. & Sims, D. (2012). Rich Dad, Smart Dad: Decomposing the Intergenerational Transmission of Income. *Journal of Political Economy*, 120(2), 268 - 303.

Heckman, J., Pinto, R. & Savelyev, P. (2013). Understanding the Mechanisms Through Which an Influential Early Childhood Program Boosted Adult Outcomes. *American Economic Review*, 103(6), 2052-2086.

### **Borrowing constraints**

Cameron, S. V., & Taber, C. (2004). Estimation of Educational Borrowing Constraints Using Returns to Schooling. *Journal of Political Economy*, 112(1), 132-182.

Brown, M., Scholz, J., & Seshadri, A. (2012). A New Test of Borrowing Constraints for Education. *Review of Economic Studies*, 79(2), 511-538.

Carneiro, P., & Heckman, J. J. (2002). The Evidence on Credit Constraints in Post-secondary Schooling. *Economic Journal*, 112(482), 705-734.

Rothstein, J. & Rouse, C.E. (2011). Constrained after College: Student Loans and Early-Career Occupational Choices. *Journal of Public Economics*, 95(1-2), 149-63.

Cowan, B.W. (2016). Testing for Education Credit Constraints using Heterogeneity in Individual Time Preferences. *Journal of Labor Economics*, forthcoming.

Stinebrickner, T. & Stinebrickner, R. (2012). Learning About Academic Ability and the College Dropout Decision. *Journal of Labor Economics*, 30(4), 707-748.

### **Education and health**

Grossman, M. (2005). Education and Nonmarket Outcomes. NBER Working Papers: 11582.

Cowan, B.W. (2011). Forward-Thinking Teens: The Effects of College Costs on Adolescent Risky Behavior, *Economics of Education Review*, 30(5), 813-25.

Jensen, R. and Lleras-Muney, A. (2012). Does Staying in School (and not Working) Prevent Teen Smoking and Drinking? *Journal of Health Economics*, 31(4), 644-657.

Fuchs, V. R. (2004). Reflections on the Socio-economic Correlates of Health. *Journal of Health Economics*, 23(4), 653-661.

Cutler, D. M. & Lleras-Muney, A. (2006). Education and Health: Evaluating Theories and Evidence. NBER Working Papers: 12352.

McCrary, J. & Royer, H. (2011). The Effect of Female Education on Fertility and Infant Health: Evidence from School Entry Policies Using Exact Date of Birth. *American Economic Review*, 101(1), 158–95.

Heckman, J., Humphries, J., Veramendi, G. & Urzua, S. (2014). Education, Health, and Wages. Working paper.

Fletcher J. & Frisvold D. (2011). College selectivity and young adult health behaviors. *Economics of Education Review*, 30(5), 826-37.

### **Compensating differentials**

Rosen, S. (1986). The Theory of Equalizing Differences. In O. Ashenfelter, R. Layard (Eds.) , *Handbook of labor economics*. Volumes 1 (pp. 641-92). Handbooks in Economics series, no. 5.

Gruber, J. (1994). The Incidence of Mandated Maternity Benefits. *American Economic Review*, 84(3), 622-41.

Bhattacharya, J. & Bundorf, M.K (2009). The Incidence of the Healthcare Costs of Obesity. *Journal of Health Economics*, 28(3), 649-58.

Stearns, J. (2015). The effects of paid maternity leave: Evidence from Temporary Disability Insurance. *Journal of Health Economics*, 43, 85-102.

## **Quasi-experimental methods and inference**

Abadie, A., Diamond, A. & Hainmueller, J. (2010). Synthetic Control Methods for Comparative Case Studies: Estimating the Effect of California's Tobacco Control Program. *Journal of the American Statistical Association*, 105(490), 493-505.

Conley, T. & Taber, C. (2011). Inference with “Difference in Differences” with a Small Number of Policy Changes, *93*(1), 113-125.

### ***WSU Disability Statement:***

Students with Disabilities: Reasonable accommodations are available for students with a documented disability. If you have a disability and need accommodations to fully participate in this class, please either visit or call the Access Center (Washington Building 217; 509-335-3417) to schedule an appointment with an Access Advisor. All accommodations MUST be approved through the Access Center.

### ***WSU Academic Honesty Statement:***

As an institution of higher education, Washington State University is committed to principles of truth and academic honesty. All members of the University community share the responsibility for maintaining and supporting these principles. When a student enrolls in Washington State University, the student assumes an obligation to pursue academic endeavors in a manner consistent with the standards of academic integrity adopted by the University. To maintain the academic integrity of the community, the University cannot tolerate acts of academic dishonesty including any forms of cheating, plagiarism, or fabrication.

Academic integrity is the cornerstone of the university and will be strongly enforced in this course. Each student must turn in original work; no copying will be accepted. Students found responsible for academic integrity violations may receive an F on the particular assignment or exam, as well as an F for the course. Repeated and/or serious offenses may result in referral to the Office of Student Standards and Accountability. Cheating is defined in the Standards for Student Conduct WAC 504-26-010 (3). It is strongly suggested that every student read and understand these definitions:

<http://conduct.wsu.edu/default.asp?PageID=338>. The Academic Integrity Statement and link to WSU’s policy at this website: [www.conduct.wsu.edu/default.asp?PageID=343](http://www.conduct.wsu.edu/default.asp?PageID=343), and an explanation of plagiarism at this one: [www.wsulibs.wsu.edu/plagiarism/main.html](http://www.wsulibs.wsu.edu/plagiarism/main.html).

### ***WSU Safety Statement:***

Washington State University is committed to maintaining a safe environment for its faculty, staff, and students. Safety is the responsibility of every member of the campus community and individuals should know the appropriate actions to take when an emergency arises. In support of our commitment to the safety of the campus community the University has developed a Campus Safety Plan, <http://safetyplan.wsu.edu>. It is highly recommended that you visit this web site as well as the University emergency management web site at <http://oem.wsu.edu/emergencies> to become familiar with the information provided.

Classroom and campus safety are of paramount importance at Washington State University, and are the shared responsibility of the entire campus population. WSU urges students to follow the “**Alert, Assess, Act**” protocol for all types of emergencies and the “**Run, Hide, Fight**” response for an active shooter incident. Remain **ALERT** (through direct observation or emergency notification), **ASSESS** your specific situation, and **ACT** in the most appropriate way to assure your own safety (and the safety of others if you are able).

Please sign up for emergency alerts on your account at [MyWSU](http://MyWSU). For more information on this subject, campus safety, and related topics, please view the [FBI's Run, Hide, Fight video](#) and visit the [WSU safety portal](#).